WEB PAGE DEVELOPMENT, 15.1200.50	
STANDARD 1.0 – APPLY PROBLEM-SOLVING AND CRITICAL THINKING SKILLS TO INFORMATION TECHNOLOGY	
1.1	Describe methods of establishing priorities
1.2	Prepare a plan of work and schedule information technology tasks
1.3	Apply problem-solving processes
1.4	Explain the purpose, types, and content of documentation
STANDARD 2.0 – MAINTAIN A SAFE GREEN INFORMATION TECHNOLOGY WORK ENVIRONMENT	
2.1	Demonstrate personal responsibility for developing and maintaining a safe and healthy information technology work environment
2.2	Use tools, materials, and equipment commonly utilized in the field of information technology safely
2.3	Identify ergonomics and repetitive strain injuries common to information technology occupations
2.4	Determine safe working practices to avoid or eliminate physical and electrical hazards
2.5	Describe techniques used to reduce power consumption in the computer environment
2.6	Identify methods for making the computer environment more environmentally friendly
2.7	Explain environmental considerations when disposing of computer/networking components
STANDARD 3.0 – RECOGNIZED SECURITY ISSUES RELATED TO INFORMATION TECHNOLOGY	
3.1	Explain procedures to maintain data integrity and security
3.2	Identify security issues related to the network, computer hardware, software, and data
3.3	Describe computer threats and methods to protect a computer, i.e., viruses, phishing, e-mail, social engineering, spoofing, identify theft, and spamming
3.4	Explain concepts such as denial of service, hacking/cracking, intrusion, detection, and prevention
STANDARD 4.0 – EXPLORE LEGAL AND ETHICAL ISSUES RELATED TO INFORMATION TECHNOLOGY	
4.1	Explore issues regarding intellectual property rights including software licensing and software duplication
4.2	Understand the difference between open source and proprietary systems in relation to legal and ethical issues
4.3	Identify issues and trends affecting computers and information privacy
4.4	Differentiate between ethical and legal uses of information technology, i.e., data pricing, use of public and private networks, social networking, industry-related data, and data piracy

STANDARD 5.0 – DEMONSTRATE BASIC COMPUTER MATHEMATICS REQUIRED FOR INFORMATION TECHNOLOGY	
5.1	Explain the function of general mathematics as it relates to computer hardware
5.2	Perform binary to decimal, decimal to hexadecimal, hexadecimal to decimal, binary to hexadecimal, and binary to hexadecimal conversions as needed to solve problems with hardware and software
STANDARD 6.0 – DESCRIBE THE DEVELOPMENT/EVOLUTION OF THE INTERNET	
6.1	Identify the components and functions of the internet
6.2	Identify the steps in the historical evolution of the internet
6.3	Identify how the internet has impacted modern life
STANDARD 7.0 – DETERMINE ISSUES THAT AFFECT INTERNET SITE FUNCTIONALITY	
7.1	Solve performance issues including bandwidth, internet connection types, pages taking too long to load, and resolution and size graphics
7.2	Identify security issues including authentication, permissions, and data
STANDARD 8.0 – UTILIZE DIFFERENT TYPES OF SEARCH INDEXES (STATIC INDEX/SITEMAP, KEYWORD INDEX, AND FULL TEXT INDEX)	
8.1	Index a site for a search
8.2	Use internet and intranet search engines
8.3	Compare and contrast spider-based search engines, directories, and RSS aggregators
8.4	Explain Meta search engines
8.5	Explain Spider search engines
8.6	Form Boolean searches to obtain desired results
STANDARD 9.0 – OUTLINE THE KEY COMPONENTS OF A WEB-SERVED PLATFORM	
9.1	Demonstrate knowledge of web server operating systems
9.2	Demonstrate knowledge of web server software
9.3	Identify additional services such as scripting languages, databases, and media
9.4	Understand APIPA and its uses
STANDARD 10.0 – IDENTIFY THE ROLES OF CLIENT-SIDE INTERNET SOFTWARE	
10.1	Demonstrate the correct use of FTP client software
10.2	Identify key functions of an internet browser

10.3	Demonstrate knowledge of e-mail client configurations
10.4	Identify uses of client collaboration software
10.5	Identify tools and uses of remote computing
STANDARD 11.0 – ADMINISTER INTERNET/INTRANET SITES	
11.1	Configure permissions
11.2	Post content to a server, providing authentication information, specifying the server host name or IP address and the destination directory
STANDARD 12.0 – DIFFERENTIATE BETWEEN POPULAR CLIENT-SIDE AND SERVER-SIDE PROGRAMMING LANGUAGES AND TERMS	
12.1	Identify the purposes of server-side programming language such as PPHP, ASP, and ASP.net to create dynamic web pages
12.2	Identify the purposes of client-side programming language such as java script and XML
12.3	Demonstrate knowledge of when to sue client-side scripting and server-side scripting
STANDARD 13.0 – CREATE HTML PAGES USING AN HTML EDITOR	
13.1	Explain the importance of W3C standards and conventions
13.2	Identify the importance of creating cross-browser coding in HTML and XHTML
13.3	Create cascading style sheets, extensible style sheet language, DHTML, and XHTML code
13.4	Code metatags properly
STANDARD 14.0 – IDENTIFY APPROPRIATE USE OF VARIOUS MULTIMEDIA EXTENSIONS, PLUGGING AND IMAGE, AND MULTIMEDIA FORMATS	
14.1	Demonstrate the appropriate use of flash and other multimedia
14.2	Demonstrate when to use image and file formats such as GIF, JPEG, and PNG
STANDARD 15.0 – IDENTIFY AND EXPLAIN COMMON FORMATS USED TO DELIVER CONTENT AND POPULAR TOOLS TO CONNECT A WEB SERVER TO A DATABASE	
15.1	Demonstrate correct use of file formats such as XML
15.2	Explain how Web-based technologies and convergence technologies are often combined
15.3	Explain how SQL can be used to extract data from a database
STANDARD 16.0 – OUTLINE THE CORE COMPONENTS OF THE INTERNET INFRASTRUCTURE	
16.1	Identify problems with internet connectivity from source to destination for various types of servers such as e-mail, web, FTP, caching and DNS
16.2	Demonstrate the use of internet domain names and DNS

16.3	Describe how various protocols or services apply to the function of their corresponding server, e.g., SSL, e-commerce, and streaming media protocols
16.4	Design web pages so that they can be accessed by individuals with disabilities
STANDARD 17.0 – ASSESS AND DESCRIBE VARIOUS INTERNET SECURITY CONCEPTS	
17.1	Identify concepts such as access control, authentication, encryption, secure socket layers, access security tools, auditing, and secure electronic transactions via log in after access control
STANDARD 18.0 – IDENTIFY AND DESCRIBE VARIOUS E-BUSINESS AND E-COMMERCE TERMS AND CONCEPTS	
18.1	Compare and contrast various online business models, such as e-commerce and affiliate marketing and publishing
18.2	Identify key factors, such as geographic location and public relations, relating to strategic marketing consideration as they relate to launching an e-business initiative
18.3	Identify key factors, such as intellectual property rights, privacy and jurisdiction, relating to legal and regulatory considerations when planning e-business solutions
STANDARD 19.0 – DEMONSTRATE THE ABILITY TO CREATE WEB PROMOTION STRATEGY	
19.1	Explain how determining target audience and competition is critical for a successful website
19.2	Identify web promotional strategies such as Search Engine Optimization, pay per click, affiliate marketing, social/virtual media, banners, and display ads
19.3	Determine the impact of web marketing strategies on web site traffic through the use of analytics
STANDARD 20.0 – DEMONSTRATE KNOWLEDGE OF PAGE LAYOUT PRINCIPLES IN THE DESIGN OF PAGES	
20.1	Identify the principles of navigation
20.2	Identify the principles of functionality
20.3	Explain the principle of usability in design